



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/064,731	08/12/2002	Francois Charette	200-1297 RLC	6580
22844	7590	11/20/2003	EXAMINER	
FORD GLOBAL TECHNOLOGIES, LLC. SUITE 600 - PARKLANE TOWERS EAST ONE PARKLANE BLVD. DEARBORN, MI 48126			CHARIOUI, MOHAMED	
			ART UNIT	PAPER NUMBER
			2857	

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

10/064,731

Applicant(s)

CHARETTE ET AL.

Examin r

Mohamed Charioui

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. **Claim 13** is objected to because of the following informalities: In page 13, line 13, change "ofdocumenting" to --of documenting--. Appropriate correction is required.

Claim Rejections - 35 USC § 102

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 2 and 5-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Ward et al. (U.S. 6,481,271)

The applied reference has a common Assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As per claims 1, 2, 6 and 7 Ward et al. teach imparting energy to the product to simulate an in use condition of the product, measuring the sound (i.e. vibrations) emitted from the product (see col. 1, line 58 to col. 2, line 4); establishing a threshold metric; generating an objective metric based on the measured sound; comparing the objective metric with the threshold metric; and generating feedback (see col. 2, lines 6-28), the feedback including information relating to the comparison of the objective metric and the threshold metric (see col. 4, lines 16-27 and Abstract).

As per claim 5, Ward et al. further teach saving information related to the objective metric and the threshold metric; performing statistical processing based on the saved information; and preparing reports based on the saved information (see col. 3, line 42 to col. 4, line 15).

As per claims 8 and 9, Ward et al. further teach documenting, using a standardized as of comments and descriptors, the cause of the noise and any necessary repairs to the product (see col. 4, lines 3-27).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4 and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al. in view of Tran et al. (U.S. 6,101,882).

As per claims 3, 4, 10-13, 18 and 19, Ward et al. teach the system as stated above except for placing a sound recording instrument in a position with respect to the vehicle to record sound emitted from the vehicle; connecting the sound recording instrument to a data acquisition apparatus; vibrating the vehicle and using the data acquisition apparatus to record the vibration induced sound; measuring the level of the vibration induced.

Tran et al. teach this feature (see Abstract; col. 1, line 45 to col. 2, line 20; and col. 4, lines 59-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate Tran et al.'s teaching into Ward et al.'s invention, because it would record the sound emitted from the vehicle and play the sound back from the recording instrument to diagnose the performance of the vehicle. Therefore, the operator would analyze and compare the sound recorded to determine any abnormalities in the vehicle and repair them before the vehicle is put on the road.

As per claims 14 and 15, Ward et al. further teach a graphical user interface and standardized list of descriptors to input into the data acquisition apparatus information pertaining to the diagnosis and repair (see col. 3, lines 6-67).

As per claims 16, 17 and 20, Ward et al. further teach saving data relating to each vehicle tested including, the objective metric, threshold metric, and any diagnosis and repair; and performing a statistical analysis (see col. 4, lines 3-27).

Prior art

3. The prior art made record and not relied upon is considered pertinent to applicant's disclosure:

Rayment ['298] discloses identification of vibration induced noises on vehicles.

Tran et al. ['018] disclose method and apparatus for identifying sound in a composite sound signal.

Breed ['787] discloses on board vehicle diagnostic module using pattern recognition.

Grasmann ['096] discloses process and apparatus for monitoring a vehicle interior.

Choi et al. ['938] disclose noise measuring device for a differential gear assembly.

Johnston ['615] discloses vehicle diagnostic system.

Miller et al. ['270] disclose method and apparatus for dynamic sound optimization.

Discenzo ['510] discloses modular machinery data collection and analysis.

Kunugi et al. ['513] disclose method and apparatus for measuring and correcting acoustic characteristic in sound field.

Wenzlanwski et al. ['256] disclose method for detecting irregular combustion processes in a multicylinder diesel internal combustion engine.

Depfenhart ['925] discloses process and apparatus for monitoring of vehicle crawler chains of vehicle during driving.

Nakamura et al. ['152] disclose apparatus for reducing noise in a closed space having divergence detector.

Kato et al. ['986] disclose generator set control apparatus and method to avoid vehicle resonances.

Roeder ['526] discloses method for quality control of processes and construction components.

Art Unit: 2857

Maino e al. ['310] disclose method of monitoring on the basis of signal energy a transmission assembly of a vehicle equipped with acceleration sensors in particular a helicopter.

Beck et al. [Pub. No.: US 20020107625] disclose monitoring device for a working vehicle.

Contact information

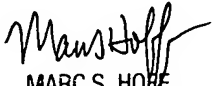
4. Any inquiry concerning this communication from examiner should be directed to Mohamed Charioui whose telephone number is 703 605-4362. The examiner can normally be reached Monday to Friday 9 am to 6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached at 703 308-1677. The fax phone number for the organization where this application is assigned is 703 305-3431.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose number is 703 308-0956.

Mohamed Charioui

11/5/03


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800